

## JOHN DEERE POWER SYSTEMS

**EXECUTIVE ORDER U-R-004-0582** New Off-Road Compression-Ignition Engines

Pursuant to the authority vested in California Air Resources Board by Sections 43013, 43018, 43101, 43102, 43104 and 43105 of the Health and Safety Code; and

Pursuant to the authority vested in the undersigned by Sections 39515 and 39516 of the Health and Safety Code and Executive Order G-14-012;

IT IS ORDERED AND RESOLVED: That the following compression-ignition engines and emission control systems produced by the manufacturer are certified as described below for use in off-road equipment. Production engines shall be in all material respects the same as those for which certification is granted.

MODEL YEAR	ENGINE FAMILY	DISPLACEMENT (liters)	FUEL TYPE	USEFUL LIFE (hours)		
2020	LJDXL04.5317	4.5	Diesel	8000		
SPECIAL FEATURES & EMISSION CONTROL SYSTEMS			TYPICAL EQUIPMENT APPLICATION			
Selective Injection, Ca	Electronic Control M Catalytic Reduction-Un Turbocharger, Charge A atalyst, Ammonia Oxida	ea. Electronic Direct	Loaders, Tractor, Dozer, Pump, Compressor, Generator Se Backhoes			

The engine models and codes are attached.

The following are the exhaust certification standards (STD) and certification levels (CERT) for non-methane hydrocarbon (NMHC), oxides of nitrogen (NOx), or non-methane hydrocarbon plus oxides of nitrogen (NMHC+NOx), carbon monoxide (CO), and particulate matter (PM) in grams per kilowatt-hour (g/kw-hr), and the opacity-of-smoke certification standards and certification levels in percent (%) during acceleration (Accel), lugging (Lug), and the peak value from either mode (Peak) for this engine family (Title 13, California Code of Regulations, (13 CCR) Section 2423):

RATED POWER	EMISSION STANDARD CATEGORY		EXHAUST (g/kw-hr)					OPACITY (%)		
CLASS			NMHC	NOx	NMHC+NOx	СО	PM	ACCEL	LUG	PEAK
75 ≤ kW < 130	Tier 4 Final	STD	0.19	0.40	N/A	5.0	0.02	N/A	N/A	N/A
		CERT	0.02	0.24	-	0.03	0.02			

BE IT FURTHER RESOLVED: That for the listed engine models, the manufacturer has submitted the information and materials to demonstrate certification compliance with 13 CCR Section 2424 (emission control labels), and 13 CCR Sections 2425 and 2426 (emission control system warranty).

Engines certified under this Executive Order must conform to all applicable California emission regulations.

This Executive Order is only granted to the engine family and model-year listed above. Engines in this family that are produced for any other model-year are not covered by this Executive Order.

Executed at El Monte, California on this

34 th\_ day of May 2019

Emissions Compliance, Automotive Regulations and Science Division

## **Engine Model Summary Form**

Manufacturer: John Deere Power Systems

Engine category: Nonroad CI
EPA Engine Family: LJDXL04.5317

Attachment page 1 of 1

EO# U-R-004-0582

RC

06/15/2020

Mfr Family Name:	350HCJ					•		00/:0/=0=0
Process Code:	Running Change							
	g		4. Fuel Rate:	5. Fuel Rate:	6. Torque (Nm)	7. Fuel Rate:		9. Emission Control
		3. kW@RPM	mm/stroke@peak kW	(kg/hr)@peak kW	@RPM	mm/stroke@peak	8. Fuel Rate:	Device Per
1. Engine code	2. Engine Model	(SAE Gross)	(for diesel only)	(for diesels only)	(SEA Gross)	torque	(kW/hr)@peak torque	SAE J1930
4045HL050		110@2200	111.2@2200	24.5@2200	586@1550	125.2@1550	18.8@1550	OC SCR-U NH3OC DFI TC CAC ECM
4045HL290	4045	110@2100	116@2100	24.8@2100	586@1550	126.7@1550	20@1550	OC SCR-U NH3OC DFI TC CAC ECM
4045HPRNT17	4045	116@2400	111.4@2400	27.3@2400	633@1550	139@1550	22@1550	OC SCR-U NH3OC DFI TC CAC ECM
10 10111 1411 17	10.10	11002100	2100	27.002.00	0000 1000	10001000	220.000	20 20.1 2 11.1020 2.1 1 2 2/10 20.11
			XX	X is model added for	or running change			